

What is claimed is:

1. An object detecting device, which comprises:

an antenna for emitting a detection wave towards a detection area and for receiving a portion of the detection wave reflected from an object; and

an adjusting cover for covering the antenna and operable to adjust the detection area to one of different shapes, the adjusting cover being selectable from a plurality of adjusting covers to be fitted to the object detecting device one at a time.

2. The object detecting device as claimed in Claim 1, wherein one of the adjusting covers comprises a disc shaped front wall and a peripheral wall extending rearwardly from a peripheral edge of the front wall, wherein the front wall has opposite side portions depressed radially inwardly to define corresponding cutouts for suppressing side lobes of the detection wave emitted from the antenna.

3. The object detecting device as claimed in Claim 2, wherein another one of the adjusting covers comprises a disc shaped front wall and a peripheral wall extending rearwardly from a peripheral edge of the front wall, wherein the front wall has a convex lens portion having a thickness progressively increasing from a position of the peripheral edge thereof towards the geometric center of the front wall.

4. The object detecting device as claimed in Claim 1, wherein the antenna is retained by a retaining member mounted rotatably on a sensor body and the adjusting cover is mounted on this retaining member.

5. The object detecting device as claimed in Claim 1, further comprising:

a support base;

a first holder mounted on the support base for rotation about a first axis;

a second holder supported under the first holder for rotation about a second axis lying perpendicular to the first axis; and

an antenna module for retaining the antenna and mounted on the second holder for rotation about a third axis lying perpendicular to the second axis.